PROCESS OF REMOVING A COATING DE-POSIT FROM A THROUGH-HOLE IN A COMPONENT AND COMPONENT PRO-CESSED THEREBY

Abstract

A process of removing deposits from through-holes in a component, such as metallic bond coat and ceramic materials from cooling holes in an air-cooled gas turbine engine. The process is particularly effective in removing a TBC material deposited in a cooling hole of a component as a result of depositing a coating of the TBC material on a surface of the component, in which the deposit is removed from the cooling hole without damaging the cooling hole or the TBC coating surrounding the cooling hole on the coated surface of the component. A preferred feature is that the cooling hole, including the entrance to the hole at a surface of the component opposite the coated surface and the coating surrounding the exit of the hole at the coated surface, exhibits improved surface characteristics that increase the discharge coefficient of the cooling hole, as evidenced by an increase in the effective area of the cooling hole.